PHYSICAL REVIEW A **THIRD SERIES, VOLUME 56, NUMBER 5** **NOVEMBER 1997**

Statistics of power-dropout events in semiconductor lasers with time-delayed optical feedback R3370
David W. Sukow, Jeff R. Gardner, and Daniel J. Gauthier

ARTICLES

Fundamental concepts

Quantum-mechanical Maxwell's demon 3374
Seth Lloyd
General theory of the decoherence effect in quantum mechanics 3383
Roland Omnès
Analysis of the causal behavior in energy transfer between atoms 3395
E. A. Power and T. Thirunamachandran
Classical position probability distribution in stationary and separable quantum systems 3409
Gilbert Reinisch
Noncyclic geometric phase, coherent states, and the time-dependent variational principle: Application to coupled electron-nuclear dynamics 3417
Erik Sjöqvist and Magnus Hedström
Arrival time in quantum mechanics 3425
V. Delgado and J. G. Muga
Duality in potential curve crossing: Application to quantum coherence 3436
Kazuo Fujikawa and Hiroshi Suzuki
Quantum copying: A network 3446
V. Bužek, S. L. Braunstein, M. Hillery, and D. Bruß
Search for parity nonconservation in atomic dysprosium 3453
A. T. Nguyen, D. Budker, D. DeMille, and M. Zolotorev
Phase operators and a special kind of transformation in the Hilbert space of a two-mode boson 3464
Sixia Yu
von Neumann capacity of noisy quantum channels 3470
C. Adami and N. J. Cerf
Nonlocality of the original Einstein-Podolsky-Rosen state 3484
O. Cohen
Incompatibility between local realism and quantum mechanics for pairs of neutral kaons 3493
F. Selleri
Liouville extension of quantum mechanics: One-dimensional gas with δ-function interaction 3507
T. Petrosky and G. Ordonez

Atomic and molecular structure and dynamics

Vacuum polarization screening corrections to the ground-state energy of two-electron ions 3529
A. N. Artemyev, V. M. Shabaev, and V. A. Yerokhin
Calculation of lifetimes of low-lying odd-parity levels of Sm 3535
S. G. Porsev
Nearly collisionless sub-Doppler spectroscopy of molecular jets 3543
A. I. Burshtein
Low-energy antiproton interaction with helium 3553
W. R. Gibbs
Hyperspherical hierarchy of three-electron radial excitations 3559
Toru Morishita, Oleg I. Tolstikhin, Shinichi Watanabe, and Michio Matsuzawa
Dipole-dipole collision-induced transport of resonance excitation in a high-density atomic vapor 3569
H. van Kampen, V. A. Sautenkov, A. M. Shalagin, E. R. Eliel, and J. P. Woerdman

(Continued)